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* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	Apr 08	"Ask CAS" for self-help around the clock
NEWS	3	Jun 03	New e-mail delivery for search results now available
NEWS	4	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS	5	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS	6	Aug 26	Sequence searching in REGISTRY enhanced
NEWS	7	Sep 03	JAPIO has been reloaded and enhanced
NEWS	8	Sep 16	Experimental properties added to the REGISTRY file
NEWS	9	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS	10	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS	11	Oct 24	BEILSTEIN adds new search fields
NEWS	12	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS	13	Nov 18	DKILIT has been renamed APOLLIT
NEWS	14	Nov 25	More calculated properties added to REGISTRY
NEWS	15	Dec 04	CSA files on STN
NEWS	16	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS	17	Dec 17	TOXCENTER enhanced with additional content
NEWS	18	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS	19	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS	20	Feb 13	CANCERLIT is no longer being updated
NEWS	21	Feb 24	METADEX enhancements
NEWS	22	Feb 24	PCTGEN now available on STN
NEWS	23	Feb 24	TEMA now available on STN
NEWS	24	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS	25	Feb 26	PCTFULL now contains images
NEWS	26	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS	27	Mar 19	APOLLIT offering free connect time in April 2003
NEWS	28	Mar 20	EVENTLINE will be removed from STN
NEWS	29	Mar 24	PATDPAFULL now available on STN
NEWS	30	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS	31	Apr 11	Display formats in DGENE enhanced
NEWS	32	Apr 14	MEDLINE Reload
NEWS	33	Apr 17	Polymer searching in REGISTRY enhanced
NEWS	34	Apr 21	Indexing from 1947 to 1956 being added to records in CA/CAPLUS
NEWS	35	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX
NEWS	36	Apr 28	RDISCLOSURE now available on STN
NEWS	37	May 05	Pharmacokinetic information and systematic chemical names added to PHAR
NEWS EXPRESS			April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS INTER			General Internet Information

NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 18:20:06 ON 13 MAY 2003

=> file biosis
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'BIOSIS' ENTERED AT 18:20:12 ON 13 MAY 2003
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNS) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 7 May 2003 (20030507/ED)

=> 's' ?deoxyglucose

L1 11451 ?DEOXYGLUCOSE

=> s (tba or (thiobarbituric (w) acid))

2355 TBA
50 TBAS
2388 TBA
(TBA OR TBAS)
6884 THIOBARBITURIC
1116833 ACID
293540 ACIDS
1247164 ACID
(ACID OR ACIDS)
6721 THIOBARBITURIC (W) ACID
L2 7854 (TBA OR (THIOBARBITURIC (W) ACID))

=> s edta

29518 EDTA
2 EDTAS
L3 29519 EDTA
(EDTA OR EDTAS)

=> s ((ferrous(w) sulphate) or iron)

6909 FERROUS
18392 SULPHATE
763 SULPHATES
18811 SULPHATE
(SULPHATE OR SULPHATES)
336 FERROUS(W) SULPHATE

105305 IRON
170 IRONS
105372 IRON

(IRON OR IRONS)

L4 105525 ((FERROUS(W) SULPHATE) OR IRON)

=> s l1 and l2 and l3 and l4

L5 1 L1 AND L2 AND L3 AND L4

=> d l5 kwic

L5 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

TI REACTIVITY OF HYDROXYL AND HYDROXYL-LIKE RADICALS DISCRIMINATED BY RELEASE OF **THIOBARBITURIC-ACID**-REACTIVE MATERIAL FROM DEOXY SUGARS NUCLEOSIDES AND BENZOATE.

AB. . . reaction independent of O2.- by the direct addition of a ferrous salt. OH. damage was detected by the release of **thioarbituric acid**-reactive material from deoxy sugars, nucleotides and benzoate. The carbohydrates deoxyribose, deoxygalactose and **deoxyglucose** were substantially degraded by the Fe2+ salt and the Fe3+ salt in the presence of an O2.--generating system; deoxyinosine, deoxyadenosine and benzoate were not. Addition of **EDTA** to the reaction systems producing radicals greatly enhanced damage to deoxyribose, deoxyinosine, deoxyadenosine and benzoate, but decreased damage to deoxygalactose and **deoxyglucose**. OH. scavengers were effective inhibitors only when **EDTA** was present. Inhibition by catalase and desferrioxamine confirmed that H2O2 and Fe salts were essential for these reactions. Apparently in the absence of **EDTA**, Fe ions bind to the carbohydrate detector molecules and bring about a site-specific reaction on the molecule. This reaction is. . . by scavengers such as mannitol, glucose and thiourea, which can themselves bind Fe ions, albeit weakly. In the presence of **EDTA**, however, Fe is removed from these binding sites to produce OH. in free solution. These can be readily intercepted by. . .

IT Miscellaneous Descriptors

DEOXYRIBOSE DEOXYGALACTOSE **DEOXYGLUCOSE** DEOXYINOSINE
DEOXYADENOSINE OXYGEN TOXICITY **EDTA** THIOUREA MANNITOL GLUCOSE
IRON SALTS HYDROGEN PEROXIDE

RN 50-99-7 (GLUCOSE)
60-00-4 (**EDTA**)
62-56-6 (THIOUREA)
154-17-6 (**DEOXYGLUCOSE**)
504-17-6 (**THIOBARBITURIC-ACID**)
533-67-5 (DEOXYRIBOSE)
766-76-7 (BENZOATE)
890-38-0 (DEOXYINOSINE)
958-09-8 (DEOXYADENOSINE)
7439-89-6D (**IRON**)
7722-84-1 (HYDROGEN PEROXIDE)
7782-44-7 (OXYGEN)
69-65-8Q, 87-78-5Q (MANNITOL)

=> d l5 ibib, iabs

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ACCESSION NUMBER: 1985:292997 BIOSIS

DOCUMENT NUMBER: BA79:72993

TITLE: REACTIVITY OF HYDROXYL AND HYDROXYL-LIKE RADICALS DISCRIMINATED BY RELEASE OF **THIOBARBITURIC-ACID**-REACTIVE MATERIAL FROM DEOXY SUGARS NUCLEOSIDES AND BENZOATE.

AUTHOR(S): GUTTERIDGE J M C

CORPORATE SOURCE: DIVISION ANTIBIOTICS AND CHEMISTRY, NATIONAL INSTITUTE

BIOLOGICAL STANDARDS AND CONTROL, HOLLY HILL, LONDON NW3
6RB, U.K.

SOURCE: BIOCHEM J, (1984 (RECD 1985)) 224 (3), 761-768.
CODEN: BIJOAK. ISSN: 0306-3275.

FILE SEGMENT: BA; OLD

LANGUAGE: English

ABSTRACT:

Hydroxyl radicals (OH.) can be formed in aqueous solution by a superoxide (O₂.-)-generating system in the presence of a ferric salt or in a reaction independent of O₂.- by the direct addition of a ferrous salt. OH. damage was detected by the release of **thiobarbituric acid**-reactive material from deoxy sugars, nucleotides and benzoate. The carbohydrates deoxyribose, deoxygalactose and **deoxyglucose** were substantially degraded by the Fe²⁺ salt and the Fe³⁺ salt in the presence of an O₂.-generating system; deoxyinosine, deoxyadenosine and benzoate were not. Addition of **EDTA** to the reaction systems producing radicals greatly enhanced damage to deoxyribose, deoxyinosine, deoxyadenosine and benzoate, but decreased damage to deoxygalactose and **deoxyglucose**. OH. scavengers were effective inhibitors only when **EDTA** was present. Inhibition by catalase and desferrioxamine confirmed that H₂O₂ and Fe salts were essential for these reactions. Apparently in the absence of **EDTA**, Fe ions bind to the carbohydrate detector molecules and bring about a site-specific reaction on the molecule. This reaction is poorly inhibited by most OH. scavengers, but is strongly inhibited by scavengers such as mannitol, glucose and thiourea, which can themselves bind Fe ions, albeit weakly. In the presence of *****EDTA*****, however, Fe is removed from these binding sites to produce OH. in free solution. These can be readily intercepted by the addition of OH. scavengers.